

Serial No. 09/986,748
Docket No.: NEC-5084-US
IKE.009

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A fixed point data generating circuit which receives a plurality of floating point data and which converts said plurality of floating point data into respective fixed point data, said fixed point data generating circuit comprising:

a reference data determining unit which determines a reference floating point data from said plurality of floating point data;

an exponent part subtractor unit which obtains a difference between each of the values of the exponent parts of said plurality of inputted floating point data and a value of an exponent part of said reference floating point data;

a shifting unit which shifts a mantissa part of each of said plurality of floating point data by said difference obtained by said exponent part subtracting unit; and

a bit extracting unit which extracts a predetermined number of the most significant bits of said mantissa part shifted by said shifting unit as fixed point data.

2. (Previously presented) A fixed point data generating circuit as set forth in claim 1, wherein said reference data determining unit comprises a maximum value detecting circuit which detects the maximum value from among the values of said plurality of floating point data, and said reference floating point data is the data having the detected maximum value.

3. (Previously presented) A fixed point data generating circuit as set forth in claim 1, wherein said reference data determining unit comprises a minimum value detecting circuit which detects the minimum value from among the values of said plurality of floating point

Serial No. 09/986,748
Docket No.: NEC-5084-US
IKE.009

data, and said reference floating point data is the data having the detected minimum value.

4. (Previously presented) A fixed point data generating circuit as set forth in claim 1, wherein said reference data determining unit comprises an average value calculating circuit which calculates an average value of the values of said floating point data, and said reference floating point data is data having the average value.

5. (Canceled)

6. (Previously presented) A fixed point data generating circuit as set forth in claim 1, wherein, when an overflow occurs in said bits extracted by said bit extracting unit as said fixed point data, said bits extracted are caused to represent the maximum value.

7. (Previously presented) A fixed point data generating circuit as set forth in claim 1, wherein, when an overflow occurs by shifting a mantissa part of each of said floating point data by said shifting unit, shifted bits are caused to represent the maximum value.

8. (Previously presented) A fixed point data generating circuit as set forth in claim 1, wherein said fixed point data extracted by said bit extracting unit is inputted to a Viterbi decoder.

9. (Canceled)

Serial No. 09/986,748
Docket No.: NEC-5084-US
IKE.009

10. (Currently amended) A computer-implemented method for generating fixed point data in which a plurality of floating point data are converted into respective fixed point data, said computer-implemented method comprising:

determining a reference floating point data from said plurality of floating point data;

obtaining a difference between each of the values of the exponent parts of said plurality of inputted floating point data and a value of an exponent part of said reference floating point data;

shifting a mantissa part of each of said plurality of floating point data by said difference between each of said values of said exponent parts of said plurality of inputted floating point data and said value of said exponent part of said reference floating point data; and

extracting a predetermined number of the most significant bits from said mantissa part shifted by said difference as fixed point data.

11. (Original) A method for generating fixed point data as set forth in claim 10, wherein said reference floating point data is the maximum data among said plurality of floating point data.

12. (Original) A method for generating fixed point data as set forth in claim 10, wherein said reference floating point data is the minimum data among said plurality of floating point data.

Serial No. 09/986,748
Docket No.: NEC-5084-US
IKE.009

13. (Original) A method for generating fixed point data as set forth in claim 10, wherein said reference floating point data is the average data of said plurality of floating point data.
14. (Canceled)
15. (Previously presented) A method for generating fixed point data as set forth in claim 10, wherein, in said extracting a predetermined number of bits from said mantissa part shifted by said difference as said fixed point data, when an overflow occurs in said bits extracted, said bits extracted are caused to represent the maximum value.
16. (Previously presented) A method for generating fixed point data as set forth in claim 10, wherein, in said shifting a mantissa part of each of said floating point data by said difference, when an overflow occurs by shifting said mantissa part of each of said floating point data, shifted bits are caused to represent the maximum value.
17. (Original) A method for generating fixed point data as set forth in claim 10, wherein said fixed point data extracted in said extracting a predetermined number of bits from said mantissa part shifted by said difference is inputted to a Viterbi decoder.
18. (Canceled)

Serial No. 09/986,748
Docket No.: NEC-5084-US
IKE.009

19. (Previously presented) A method for generating fixed point data as set forth in claim 10, further comprising utilizing the fixed point data.

20. (Previously presented) A method for generating fixed point data as set forth in claim 19, wherein the fixed point data is utilized in a Code Division Multiple Access system.